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* Admitted in TX only

** Admitted in CT only

July 30, 2003

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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AUG 0 4 2003

TECH CENTER 1600/2900

Re:

U.S. Patent Application No.: 10/008264

For: T-Bet Compositions and Methods of Use Thereof

Inventors: Glimcher, Laurie H. et al.

Filed: December 3, 2001 Our Ref. No.: HUI-040CP

Dear Sir:

I enclose herewith for filing in the above-identified application the following:

- Information Disclosure Statement; 1.
- 2. PTO Form 1449:
- Copies of references cited in PTO Form 1449 (9); 3.
- Copy of the International Search Report (2 pages); 4.
- 5. Copy of the European Examination Report (3 pages); and
- 6. A Return Postcard.

No additional costs are believed to be due in connection with the filing of this Information Disclosure Statement. However, please charge any necessary fees in connection with the enclosed statement to our Deposit Order Account No. 12-0080. For this purpose, a duplicate of this sheet is attached.

I hereby certify that this correspondence is deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:
July 30, 2003 Date
My - 9 W
Megan E. Williams, Esq., Reg No. 43,270

Respectfully submitted, LAHIVE & COCKFIELD, LLP

Attorney for Applicants Registration No. 43,270



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Glimcher, Laurie H., et al.

Serial No.: 10/008,264

Filed: December 3, 2001

For: T-Bet Compositions and Methods of Use Thereof

Attorney Docket No.: HUI-040CP

Group Art Unit: 1642

Examiner: Not Yet Assigned

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AUG 0 4 2003

TECH CENTER 1600/2900

Commissioner for Patents P.O. Box 1450 Aexandria, VA 22313-1450

Certificate of First Class Mailing (37 CFR §1.8(a))

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date set forth below.

July 30, 2003

Date of Signature and of Mail Deposit

By:

Megan E. Williams, Esq. Registration No. 43,270

Attorney for Applicants

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicants and their Attorney are aware of the following publications and information, listed on the attached PTO Form 1449, and in accordance with 37 CFR §1.97 hereby submit these publications for the Examiner's consideration. Reference ID Nos. A1, 2, 3, 8, and 6 were cited in an International Search Report during the prosecution of PCT/US02/38514 mailed April 18, 2003 which corresponds to the above referenced application. Reference ID Nos. A4, 5, 7, and 8 were cited in a Examination Report during the prosecution of European Patent Application No. 00 939 546.8 dated December 9, 2002 which

Serial Number: 10/008264 Page -2- Group Art Unit: 1642 also corresponds to the above referenced application. A copy of the reports and each cited publication is enclosed.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, Applicants understand that the Examiner will make an independent evaluation of the cited publications.

Under 37 CFR § 1.97(b)(3), no additional costs are believed to be due in connection with the filing of this disclosure. If, however, a first Office Action on the merits issues in this application bearing a mailing date prior to the date of this Information Disclosure Statement, please charge the appropriate fee for consideration of \$180.00 as required under 37 CFR §1.17(p) to our Deposit Order Account No. 12-0080.

Respectfully submitted, LAHIVE & COCKFIELD, LLP

Megan E. Williams, Esq. Registration No. 43,270 Attorney for Applicants

28 State Street Boston, MA 02109 (617) 227-7400

Date: July 30, 2003

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Enclosures

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE HUI-040CP

APPLICANT

10/008264

Sheet 1 of 1 RECEIVE

LIST OF PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary)

Glimcher, Laurie H. et al.

AUG 0 4 2003

December 3, 2001 GROU

1642 TECH CENTER 1600/2900

U.S. PATENT DOCUMENTS

	EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		A1	6,031,078 A	02/00	Khodadoust	530	350	
- [

FOREIGN PATENT DOCUMENTS

Γ		DOCUMENT NUMBER	DATE	Country	CLASS	SUBCLASS	TRANS	LATION
1							YES	NO
Γ	A2	WO 00/73453 A1	12/00	WO				
Г	A3	WO 99/11783 A2, A3	03/99	WO				

OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

		OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)		
A4		Bulfone, et al. "T-brain-1: a Homolog of Brachyury whose Expression Defines Molecularly Distinct Domains within a Cerebral Cortex." Neuron 15(1):63-78 (July 1995);		
A5		EMBL Acession No. AF093098 for Homo sapiens transcription factor TBLYM (TBLYM) mRNA, complete cds. December 7, 2000;		
A6		Mullen, et al. "Role of T-bet in Commitment of T _H 1 Cells Before IL-12-Dependent Selection." Science 292:1907-1910 (June 2001);		
A7	Γ	Smith "T-box Genes: What They Do and How They Do It." Trends Genet. 15(4):154-158 (April 1999);		
A8		Szabo, et al. "A Novel Transcription Factor, T-bet, Directs Th1Lineage Commitment." Cell 100:655-669 (March 2000);		
A9		Zhang, et al. "Cloning and Characterization of a New Member of the T-Box Gene Family." Genomics 70(1):41-48 (2000).		
	L			
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Examiner	•	Date Considered		

*EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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Application No.

00 939 546.8-2405

Ref.

P81067PCTEP

Date

09.12.2002

Applicant

PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Communication pursuant to Article 96(2) EPC

The examination of the above-identified application has revealed that it does not meet the requirements of the European Patent Convention for the reasons enclosed herewith. If the deficiencies indicated are not rectified the application may be refused pursuant to Article 97(1) EPC.

You are invited to file your observations and insofar as the deficiencies are such as to be rectifiable, to correct the indicated deficiencies within a period

of 4 months

from the notification of this communication, this period being computed in accordance with Rules 78(2) and 83(2) and (4) EPC.

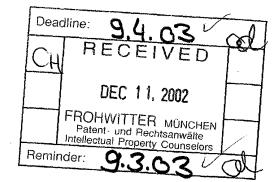
One set of amendments to the description, claims and drawings is to be filed within the said period on separate sheets (Rule 36(1) EPC).

Failure to comply with this invitation in due time will result in the application being deemed to be withdrawn (Article 96(3) EPC).



GIEBELER K M Primary Examiner for the Examining Division

Enclosure(s): 2 page/s reasons (Form 2906)





Bescheid/Protokoll (Ánlage)

Communication/Minutes (Annex)

Notification/Procès-verbal (Annexe)

Datum Date Date

09.12.2002

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1

Anmelde-Nr.: Application No.: Demande n°:

00 939 546.8

The examination is being carried out on the following application documents:

Text for the Contracting States:

AT BE CHILI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Description, pages:

1-84

as published

Claims, No.:

1-32

as published

Drawings, sheets:

1/27-27/27

as published

1. The following documents are cited:

D1: CELL, vol. 100, March 2000, pages 655-669

D2: DATABASE EMBL SEQUENCES Accession No. AF093098, 16 Oct 1999

D3: NEURON, vol. 15, no. 1, July 1995, pages 63-78

D4: TRENDS IN GENETICS, vol. 15, no. 4, April 1999, pages 154-158

- 2. The documents D1 and D2 indicated in the search report as P-documents are not to be regarded as state of the art according to Article 54(2) EPC, as the date of priority claimed can be allowed for the relevant parts of the present application, cf. Articles 54(2) and 89 EPC.
- 3. The application does not meet the requirements of Article 84 EPC, because claims 1, 4-13 and 18-32 are not clear.
- 3.1. The present application relates to a Th1 specific transcription factor (termed "T-bet"), which upon retroviral transduction into Th2 and Tc2 primary T-cells redirects them into Th1 and Tc1 cells, respectively.



Communication/Minutes (Annex)

Notification/Procès-verbal (Annexe)

Datum Date Date

09.12.2002

Blatt Sheet Feuille

2

Anmelde-Nr.: Application No.: Demande n°:

00 939 546.8

However, the protein is not clearly defined in the independent claims of the application by its structural and functional features. In fact, the independent claims merely refer to the term "T-bet protein" which is an arbitrary name not known by person skilled in the art at the present priority date. Pursuant to Article 84 EPC, the claims have to define the invention as clearly as possible. Consequently, the structural and functional features of the protein have to be stated in the independent claims.

- 3.2. Claims 18-20 do also not clearly define the claimed protein since it is not stated in said claims that the "at least 70(90)% identity" is over the entire length, and any known protein, especially the T-box proteins (see D3 and D4) share short stretches of amino acid identity to SEQ ID NOs: 2 and 4. In the absence of a clear limitation over the prior art proteins, said claims thus have to be considered to lack novelty. It appears that the description does also not state that the percentage of amino acid identity should be over the entire length.
- 3.3. Claims 14-20 should apparently refer to claim 13, not 12.
- 4. Claims 27 and 28 relating to "an agent capable of detecting an indicator of T-bet activity" and to "an agent that modulates T-bet activity" lack sufficiency of disclosure (Article 83 EPC) and support by the description (Article 84 EPC) since the agents are neither disclosed over the entire breadth of the claims nor clearly defined.
- 5. The applicant is requested to file new claims which take account of the above comments and to adapt the description accordingly.

Incorporation by reference is not provided for by the EPC. Such reference should therefore be deleted from the description, see also the Guidelines C-II 4.18.

The statement on page 1, lines 3-7 is also not in line with the EPC and should likewise be deleted.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/38514

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : C12Q 1/02, 1/68; G01N 33/53 US CL : 435/6, 7.8, 29					
According to International Patent Classification (IPC) or to both national classification and IPC					
B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols) U.S.: 435/6, 7.8, 29					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet					
	UMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where ap		Relevant to claim No.		
A	WO 00/73453 A1 (PRESIDENT AND FELLOWS Of December 2000 (07.12.2000), see entire document, and 87.		101-122		
A	WO 99/11783 A2 (SMITHKLINE BEECHAM PLC entire document.) 11 March 1999 (11.03.1999), see	101-122		
Α					
Α	SZABO et al. A Novel Transcription Factor, T-bet, Directs Th1 Lineage Commitment. 101-122 Cell. 17 March 2000, Vol. 100, pages 655-669, see entire document.				
Α	MULLEN et al. Role of T-bet in Commitment of T. Selection. Science. 08 June 2001, Vol. 292, pages		101-122		
Further	documents are listed in the continuation of Box C.	See patent family annex.			
* 8	pecial categories of cited documents:	"T" later document published after the inte	mational filing date or priority		
"A" document	t defining the general state of the art which is not considered to be	date and not in conflict with the applic principle or theory underlying the inve	ation but cited to understand the		
"E" carlier ap	pplication or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be conside when the document is taken alone			
	t which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination			
"O" document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art					
"P" document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed					
Date of the actual completion of the international search Date of mailing of the international search report ADD 2002					
	3 (03.04.2003)	18 APR 4	.UUJ		
Con Box Was	ailing address of the ISA/US nmissioner of Patents and Trademarks PCT shington, D.C. 20231	Authorized officer D. Roberts for Terry A. McKelvey			
Facsimile No	5. 703-305-3230	Telephone No. 703-308-0196			

Form PCT/ISA/210 (second sheet) (July 1998)

	PCT/US02/38514
INTERNATIONAL SEARCH REPORT	101,000,001,
INTERNATIONAL SEARCH REPORT	
Continuation of Box I Reason 2:	
the claims are drawn to use of agents that modulate the expression and/or activity	of T-bet. These agents are drawn to compounds whose
activity is determined by assays, which compounds are not structurally described in	n a way such that a meaningful, comprehensive search
of the claims can be made.	
	•
Continuation of B. FIELDS SEARCHED Item 3:	
EAST (USPAT, EPO, JPO, Derwent), Dialog OneSearch (biotech databases)	
search terms: t-bet, t box, expressed, t cells, brachyury, tbx1-6, t-brain-1, tbr-1, a	issay? measur? test? screen? modulat? identif?
IFN, tec kinase, TGF, inhibit?, stimulat?, agonist?, antagonist?	isody,, modeli,, test., soroom, modulat., tdoini.,
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